

# MEDICINE TODAY

Current comment on medical progress, discussion of selected topics from recent books or periodic literature, by contributing editors.

## Urology

**U**reteral stricture and ureteral kinks have become recognized as definite pathological entities. The former condition was worked out at length by Hunner,<sup>1</sup> and although at that time his views were not widely accepted, all authorities agree now that this condition is the cause of much pathology in the upper urinary tract.

Inasmuch as the most common cause of urinary infection is obstruction in the urinary passages<sup>2</sup> it is logical to assume that infection in the upper urinary tract can be due to stricture of the ureter the same as a stricture of the urethra will cause infection in the bladder.<sup>3</sup> This being true, it naturally follows that in any infection of the upper urinary tract, especially in the chronic or recurrent infections, the obstruction must be diligently sought, and in the absence of a calculus or other obvious cause of obstruction, such as pregnancy or pressure from extraureteral pathology, a ureteral stricture or kink must be either diagnosed or ruled out.

In addition to these cases of definite renal infection, ureteral strictures and kinks cause symptoms due to obstruction, in which there may be no infection present. The most constant of these symptoms is pain in the side. This may be either sharp or dull, and is felt anywhere between the ribs and the pelvis, anteriorly or posteriorly, and radiates to the groin or thigh.<sup>4</sup>

Bladder symptoms such as increased frequency of urination, urgency, dysuria and pain in the bladder is frequently caused by ureteral stricture or kink, and may or may not be accompanied by infection in the bladder.<sup>5</sup>

Gastrointestinal symptoms, chronic indigestion, nausea and vomiting, pain in the abdomen (especially in the epigastrium), and constipation, are common reflex manifestations of ureteral obstruction due to strictures and kinks of the ureter.<sup>4 5 6</sup> This explains the fact that most of these cases have been treated for everything from appendicitis to gastric carcinoma.

The diagnosis of ureteral kink is made by the pyeloureterogram, which shows the abnormal course of the ureter, the dilatation above the kink in the ureter, and in the kidney pelvis. Although the same method should be used in searching for ureteral

stricture, too much dependence cannot be put in the findings of the pyeloureterogram, but should be supplemented by the use of the bulb. A "hang" is felt when withdrawing the bulb, the same as that felt when using a bulbous bougie in diagnosing urethral stricture.<sup>3</sup>

The treatment for ureteral kink is nephropexy, if support of the kidney with binders and corsets has failed.<sup>4</sup> Ureteral strictures are successfully dilated by the use of bougies and bulbs. In addition to these methods of treatment any possible focus of infection must be sought out and remedied.<sup>5</sup>

From the foregoing it is evident that the possibility of a stricture or kink of the ureter must be considered, and either diagnosed or ruled out in all cases of upper urinary infection, or cases presenting pain in the side, bladder symptoms or vague gastrointestinal symptoms in which no definite cause for the condition can be found.

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## Laboratory Medicine and Methods

**B**lood Calcium Estimations—The most striking feature in the progress of present-day medicine is the application of physiological chemistry to the problems of disease, and particularly in relation to the ductless glands and their secretions. The control of the processes of nutrition by the internal secretions is reflected in the chemistry of the blood. The clinical laboratory methods of blood chemistry as devised by Folin, Benedict and others have given the physician an effective tool in the investigation and control of many conditions which before had baffled his best efforts.

Recently the importance of blood calcium and its control by the hormone of the parathyroids is emphasized by the preparation by Collip<sup>1</sup> and his collaborators of an active extract of these glands—parathyroid extract, Collip—which is available for clinical use, and in a form acceptable to the Council on Pharmacy and Chemistry of the American Medical Association. These workers have shown conclusively, what was before less definitely known, that the conditions resulting from experimental parathyroidectomy in animals and accidental surgical parathyroidectomy in man (the principal clinical manifestation of which is *tetany*, and which is reflected in the blood by extremely low calcium content), are completely prevented and controlled by subcutaneous or intramuscular injection of this extract.

The normal average of calcium is about 10.5 mgs. per 100 cc. of blood serum, varying within the

1. Collip, J. B.: The extraction of a parathyroid hormone which will prevent or control parathyroid tetany and which regulates the level of blood calcium. *J. Biol. Chem.*, 63:394-438, March, 1925.

1. The Diagnosis and Treatment of Obscure Cases of Pyelitis and Hydronephrosis, *Internat. Clinics*, 1912, IV, 22nd series.

2. Keyes *Urology*, 1924 edition, pp. 289, 316, 322.

3. Ureteral Stricture, by Hunner in "Cabot's *Urology*," 1924 edition, Vol. 2, p. 307.

4. Nephropexy for the Relief of Ureteral Kinks Associated with Ptosis, C. E. Burford, M. D. *J. A. M. A.*, Vol. 88, No. 8, p. 541, February 19, 1927.

5. Stricture of the Ureter in Males, Nelse F. Ockerblad, M. D. *J. A. M. A.*, Vol. 88, No. 8, p. 544, February 19, 1927.

6. Ureteral Stricture and Apparent Ureteral Stricture, Gerhard L. Moench, M. D., *Urologic and Cutaneous Review*, Vol. 30, No. 2, p. 649, November, 1926.